

STEPHEN MITCHELL

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EDUCATION

Bachelor of Science: Engineering & Computer Science
James Madison University. GPA: 3.87

Graduation: May 2022

SKILLS

Programming Languages	Java / <i>Eclipse</i> , Python / <i>Visual Studio Code</i> , C / <i>Vim</i>
Computer Aided Design	SolidWorks, Certified in Autodesk AutoCAD & Autodesk Inventor
Model Based Systems Engineering	SysML & UML / <i>Cameo Systems Modeler</i> , DOORS
Graphic Design	Advanced usage of Adobe Photoshop, Adobe Illustrator

EXPERIENCE

Northrop Grumman Mission Systems <i>Systems Engineering Intern</i>	Baltimore, Maryland Jun 2020 - Aug 2020
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- Developed SysML model for radar system product line in Cameo Systems Modeler
- Applied principles of model based systems engineering to translate design requirements into an effective and accurate system model
- Designed and presented process for modeling product line variations to engineering teams
- Practiced requirements management on a large scale project

James Madison University <i>Research Assistant in the Wearable Computing Research Group</i>	Harrisonburg, Virginia Sep 2018 - Present
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- Wrote Python tools to format data for machine learning systems
- Developed algorithm to automatically measure athlete performance from accelerometer data
- Assisted in training and testing of neural networks; supervised by Dr. Jason Forsyth
- Researched uses of machine learning and wearable technology in physical rehabilitation

RELEVANT COURSES

Engineering:	Statics and Dynamics, Calculus I - III, Linear Algebra and Differential Equations, Engineering Management I, Engineering Design I - II
Computer Science:	Algorithms and Data Structures, Computer Systems, Advanced Programming, Discrete Math

PROJECTS

Aerial Multispectral Imaging Capstone Project Aug 2020 - Present
Used a drone-attached multispectral camera to image a vineyard in Albemarle, Virginia. Wrote a REST API in Django for handling user data and authentication. Connected REST API to ReactJS frontend to allow vineyard manager to view property in different spectral bands. Used git version control to manage the project and Docker to create easily-deployable images of the frontend and backend. Currently working on writing infrastructure in Terraform.

Engineering Design II Human Powered Vehicle Project Aug 2019 - Mar 2020
Worked in a team of nine engineering students to create a bicycle-inspired vehicle for a differently-abled member of the local community. Developed proof-of-concept prototypes to convey mechanical designs to the stakeholder as well as analytical models in MATLAB to calculate the center of mass and force output of the vehicle.

EXTRACURRICULARS

Unix Users Group - Learned advanced tools and internal workings of Unix-based operating systems

Club Archery - Represented James Madison University at collegiate archery competitions